

# THE SIGNIFICANCE AND VALUE OF THE LANGE GOLDSOL REACTION IN DISSEMINATED SCLEROSIS\*

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(ABSTRACT)

Recent reports from London of a possible etiological factor for multiple sclerosis having been found, and a tentative therapy based thereon suggested the following study to ascertain the present status of the laboratory findings in relation to clinical course.

Seventy clinically proven multiple sclerosis cases were studied over a period of nine months under Dr. Wilson's supervision. These were routine admissions to Dr. Kinnier Wilson's clinic.

Previous workers from 1912 to 1930 had been unanimous in their conclusions and were confirmed by sufficient autopsy material to admit of no doubt of their conclusions.

In 1930, however, a group of workers under Sir James Purves-Stewart, reporting on a new method of therapy, suggest that its success is indicated by disappearance of the spinal fluid changes. They claim that all their cases show initial alterations in the fluid, and that these disappear or tend to disappear following specific therapy.

Our conclusions are as follows:

- I. Of 70 cases we find 25 per cent show completely normal Lange colloidal goldsol curves; 25 per cent show paretic curves, and 50 per cent show almost every possible intermediary curve between the normal and paretic zones.

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- II. We find no definite parallel between the clinical course and the spinal fluid findings. Often a normal curve occurs in an acute case as well as a strong curve in an old stationary case, and vice versa.
- III. We find that the fluid alters both spontaneously and following treatment of all kinds—with or without a corresponding clinical modification.
- IV. Our results confirm the conclusions of all those from 1912 to 1930 who have worked with a large number of cases.

With the exception of the recent reports of 1930 the consensus of opinion seems to be that the Lange goldsol test, while of distinct interest, is not sufficiently definite to be used as an indication of the success of therapy.

In a disease that has spontaneous remissions we must be very guarded as to the value of any therapy, and if we wish to use the goldsol test to help in gauging the results of treatment we must first establish what the normal curve is in any case of disseminated sclerosis.

Up to the present we feel that no one has shown that any real value can be placed on colloidal gold curves in disseminated cases.

We have noted that 25 per cent of all cases in any stage of the disease show perfectly normal gold curves. We have also noted that the curve is liable to change with or without treatment, and we have the results of autopsied cases to verify these statements.

If the Lange curve is ever to be used in disseminated sclerosis as a basis or guide for therapy we feel that sufficient research should first be conducted to find out what constitutes the exact normal for a case of disseminated sclerosis. We would suggest that each case must be studied over a period of years through the various stages of remission and exacerbation; that the patient should be submitted to lumbar punctures at regular intervals in the acute

and chronic stages; that one series of cases should remain untreated, and a second series be treated with the usual arsenical preparations and a third with a more specific therapy if there be one. Then we will have a sufficiently large series of cases properly controlled and studied through the periods of remission and exacerbation to judge if the Lange test is to prove of value in the study of the disease. The largest series of cases ever studied in the twenty years since this test has been used is Muller's (100 cases), and when we compare this with the thousands of cases of syphilis published with coincident Lange curves, we realize that the value of the test in disseminated sclerosis still remains to be proved.

